

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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FEDERAL COMMUNICATIONS COMMISSION
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| In the Matter of |) | |
| |) | |
| Amendment of Parts 21 and 74 to Enable |) | MM Docket No. 97-217 |
| Multipoint Distribution Service and |) | |
| Instructional Television Fixed |) | File No. RM-9060 |
| Service Licensees to Engage in Fixed |) | |
| Two-Way Transmissions |) | |

**REPLY COMMENTS OF THE ARCHDIOCESE OF LOS ANGELES EDUCATION
AND WELFARE CORPORATION**

The Archdiocese of Los Angeles Education and Welfare Corporation ("Archdiocese"), by its attorneys, and pursuant to Section 1.415 of the Commission's Rules, hereby submits its reply comments in the above-referenced proceeding. The Archdiocese has been an ITFS licensee for more than 30 years, and is a member of Catholic Television Network, Inc. ("CTN"). The Archdiocese filed comments on the Petition for Rule Making which led up to the present proceeding, and has played an active role in the preparation and filing of CTN's comments and reply comments in the present proceeding. The Archdiocese fully supports CTN's comments and reply comments. The Archdiocese files these reply comments separately in order to emphasize a few selected points.

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List A B C D E

I. The Archdiocese Supports CTN's Proposals for Frequency Separation and Notification.

The Archdiocese strongly supports CTN's proposal to provide frequency separation between ITFS downstream and commercial upstream operations to protect ITFS licensees from adjacent-channel interference.¹ The Archdiocese also supports CTN's proposed notification plan designed to afford ITFS licensees protection from brute-force overload.² Indeed, adoption of these proposals is *essential* to prevent the preclusionary effect that would otherwise accompany Petitioners' plan. Unless the Commission protects ITFS licensees from adjacent-channel and brute-force overload interference from commercial upstream response transmissions, existing ITFS systems will effectively be frozen in place with little or no possibility of expansion. This is an unacceptable sacrifice to ask of educators, who face a growing need for ITFS and distance learning opportunities.

Adoption of Petitioners plan would result in nothing short of a complete takeover of the spectrum currently allocated to ITFS. Petitioners anticipate flooding the Commission with new "advanced technology" applications for response station hubs and booster stations when final rules are adopted.³ Once these applications are on file, it may become difficult or impossible for ITFS licensees to perform simple modifications -- such as adding new receive sites or booster stations -- minor modifications that are routinely filed and granted today.

Although Petitioners have promised to protect *existing* ITFS stations and their registered receive sites, they do not propose to protect future ITFS facilities. In fact, Petitioners emphasize that wireless cable operators may interfere at will with receive sites registered after advanced

¹ See Comments of CTN at 16-18, Reply Comments of CTN at Section III.

² See Comments of CTN at 13-14.

³ Comments of Petitioners at 36.

technology facilities are developed,⁴ and they reserve the right to interfere with facilities applied for simultaneously.⁵ Although the current rules also impose a first-in-time, first-in-right system, the situation is quantitatively different under Petitioners' proposals. Indeed, co-channel and adjacent-channel interference is all but guaranteed once a wireless cable operator has cellularized a service area with a grid of wideband response station hubs and begins installing booster stations and response station transmitters under a blanket license.

The near-impossibility of adding new receive sites on channels co- and adjacent to commercial upstream operations under Petitioners' proposal stands in stark contrast to President Clinton's recent educational initiative. In his annual State of the Union address, the President announced a "first-ever" national effort to reduce class size through the construction of an estimated 5,000 new schools.⁶ How will these schools receive ITFS programming after wireless cable operators have cellularized their markets? Petitioners have all but announced a freeze on adding new ITFS receive sites. It is small wonder that at least one commenting party has recommended that the Commission provide an opportunity for ITFS licensees to add planned receive sites in anticipation of the flood of "advanced technology" applications.⁷

The Archdiocese has no desire to stand in the way of Petitioners' efforts to run a profitable business. Indeed, the Archdiocese currently enjoys the financial benefits of its excess capacity lease agreement with a wireless cable operator. However, the Archdiocese sees no need

⁴ See Comments of Petitioners at 24 n.40 (co-channel and adjacent-channel interference); *id.* at 91 (brute-force overload interference).

⁵ Comments of Petitioners at 37.

⁶ See *Telecommunications Reports*, Feb. 2, 1998, at 32.

⁷ See Comments of ITFS Parties at 8 n.5

for a commercial takeover of the ITFS allocation in order to secure the benefits of two-way ITFS and MDS operation. With simple modifications to the two-way rules such as those CTN has proposed, ITFS can maintain its flexibility, independence, and ability to grow to meet the educational needs of future generations.

II. Frequency Separation “Guardbands” Should be Restricted to MDS Downstream Operations, and Not Left Vacant.

The Archdiocese supports CTN’s efforts to protect downstream ITFS operations from upstream commercial response station transmissions through the technique of frequency separation, or guardbands. Seizing upon the term “guardband,” Petitioners have criticized CTN’s proposal because “guard bands are spectrally inefficient.”⁸ This criticism is wholly misdirected. CTN has not proposed that empty spectrum lie between ITFS downstream operations and MDS upstream operations. Instead, CTN proposes that operations within guardbands be restricted to MDS downstream transmissions.⁹ This position is based on sound policy considerations.

Petitioners have proposed a highly complex engineering methodology that attempts to predict the effect of a large number of dispersed response station transmitters on co-channel and adjacent-channel operations. Petitioners’ faith in their engineering methodology appears unshakable.¹⁰ However, the Archdiocese is not persuaded of the soundness of Petitioners’ methodology, and three highly-respected engineering consultants have said that Petitioners’

⁸ Comments of Petitioners at 101.

⁹ See Comments of CTN, Joint Engineering Exhibit at 6 (“MDS operators could still use the 24 MHz of guardband spectrum for conventional downstream MDS operations”); *Id.* at 7 (6 MHz guardband precludes only MDS *upstream* transmissions).

¹⁰ See, e.g., Comments of Petitioners at 58 n.98 (describing its interference methodology as “conservative”).

interference methodology “is unduly complicated and represent[s] an unwarranted risk of new interference to existing ITFS stations.”¹¹ Other commenters agree with the Archdiocese that Petitioners’ proposed engineering methodology is “off the mark in terms of providing good estimates of potential interference”,¹² “will not result in a meaningful analysis”,¹³ and “is not adequate for nationwide regulations.”¹⁴

No ITFS licensee should be subjected to the risk that another licensee could begin upstream operations on frequencies adjacent to its own, absent an acceptable engineering demonstration of no harmful interference. In contrast, Petitioners appear to be comfortable with this risk -- it is inherent in their proposal. Petitioners admit that adjacent-channel interference between upstream and downstream transmissions will be a difficult problem to solve.¹⁵ Accordingly, the Archdiocese supports CTN’s guardband approach, which is intended to place the risk of interference where it belongs: on the wireless cable operator. Consistent with this intent, this approach seeks to make commercial downstream operations adjacent in spectrum to commercial upstream operations. Although the term “guardband” is used to describe the area of spectrum that separates ITFS downstream operations from commercial upstream operations, this guardband need not be vacant. It merely guards ITFS licensees. MDS licensees who are willing to assume the interference risk from their own upstream transmissions are welcome to use the

¹¹ Comments of CTN, Joint Engineering Exhibit at 5.

¹² Comments of EDX Engineering, Inc. at 1.

¹³ Comments of Spike Technologies, Inc. at 6.

¹⁴ Joint Comments of Dallas County Community College District et. al. at 3 n.2.

¹⁵ See Comments of Petitioners at 106 (“Obviously, it will be difficult to design systems that assure upstream transmissions will protect adjacent channel downstream transmissions from interference”).

guardband spectrum for downstream operations if they can engineer a system that will permit them to do so.

Under the proposal CTN now advances in its reply comments, each 4-channel ITFS licensee is guaranteed to have at least two channels that are separated from MDS upstream operations by at least 6 MHz.¹⁶ Whether or not the Commission adopts this specific band plan, the Archdiocese urges the Commission to adopt rules that assure that *any* ITFS licensee can conduct its downstream operations without fear of interference from co- and adjacent-channel upstream transmissions. Frequency separation accomplishes this goal in a simple, straightforward manner.

III. The Presence of ITFS Incumbents with Evolving Educational Needs Makes MDS/ITFS Unlike Other Services for which the Commission has Established Geographic-Area Licensing.

Petitioners urge the Commission to turn over its job of independently reviewing interference analyses to the wireless cable operators, thus placing the fox squarely in charge of the henhouse.¹⁷ Recognizing the unusual nature of this request,¹⁸ Petitioners attempt to analogize their scheme for two-way MDS to the rules for other wireless services such as Local Multipoint Distribution Service (LMDS), Wireless Communications Service (WCS), General Wireless Communications Service (GWCS) and 39 GHz service.¹⁹ Of course, these comparisons

¹⁶ See Reply Comments of CTN at Section III.D.

¹⁷ See *generally* Comments of Petitioners at 20-34. Even though an ITFS licensee can, in theory, file an “advanced technology” application, in practice, as the Commission recognizes, only the wireless cable operator will have the engineering resources to conduct the complex engineering studies required under the Petitioners’ proposed rules. See NPRM at ¶ 50.

¹⁸ See Comments of Petitioners at 24 (“the proposed application processing rules are perhaps unusual for the Mass Media Bureau”).

¹⁹ See Comments of Petitioners at 24, 26-28.

neglect one fundamental distinction: with each of these other services, the Commission was not concerned with the protection of incumbents. It is one thing to make a licensee responsible for resolving interference within its own service area when it is the only user of the spectrum in that area. It is quite another to pick one licensee out of a half-dozen incumbents and give that licensee hegemony over the rest.²⁰

Petitioners note that the Commission recently has proposed rules for geographic area licensing even in encumbered services such as 800 MHz Specialized Mobile Radio (SMR) and Multiple Address Systems (MAS). It is this analogy that discloses Petitioners' true colors. In each of these services, the Commission's geographic area licensing scheme includes explicit rules *freezing incumbent systems in place*. In the Commission's proposed rules for MAS, incumbents would be permitted to fill in "dead spots" in their coverage, but "would not be permitted to expand their systems without the consent of the geographic area licensee."²¹ Regarding incumbent SMR operators, the Commission stated that "allowing non-EA licensees to expand their systems at will after wide-area licensing has occurred is not feasible."²² This, then, is the future that Petitioners foresee for ITFS incumbents after two-way rules are adopted: to be frozen in place, with no possibility of expansion. CTN's proposals are designed to avoid this

²⁰ See Comments of Petitioners at 151 (ITFS licensees who participate in a two-way system "will all lose some degree of autonomy").

²¹ *Amendment of the Commission's Rules Regarding Multiple Address Systems, Notice of Proposed Rule Making*, 12 FCC Rcd 7973, 7984 (1997).

²² *Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, First Report and Order*, 11 FCC Rcd 1463, 1513 (1995).

fate for the ITFS community while still permitting two way operations on ITFS and MDS frequencies. The Archdiocese urges the Commission to adopt them.

Respectfully submitted,

ARCHDIOCESE OF LOS ANGELES
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